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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,854	03/22/2004	John Lamotte	27500-GN03014	3013
7590 12/21/2007				
Joseph T. Guy Nexsen Pruet Jacobs & Pollard, LLC 201 W. McBee Avenue Greenville, SC 29603				
			EXAMINER TUROCY, DAVID P	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 12/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/805,854	Applicant(s) LAMOTTE ET AL.	
	Examiner David Turocy	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-225 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-225 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/22/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 17-20 are awkwardly written and confusing and therefore indefinite. Appears an extra comma exists, where the claims should more reasonable be "said substrate carrying said deposited"

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-16, 29-45, 62-89, 122-129, 130-133 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2339800 hereafter GB '800.

Claim 1: GB '800 discloses a method for coating a phosphor layer or similar layer onto a flexible substrate, within a vacuum, which inherently is sealed (due

to the nature of a vacuum), and deforming the substrate before, during and after the coating vapor deposition step (Figures, abstract page 1, 4).

Claim 2: GB '800 Discloses continuously supplying the web (figures)

Claim 3-8: GB '800 discloses coating a large sheet and using the coating for such products as a security card, decorative wrapping, etc. (page 1) and therefore the deposition will necessarily exceed the ready-for-use area by the factors as claimed.

Claims 9-16: GB '800 discloses substrate moving over one or more rollers or guiding frames (figures).

Claims 21-28: GB '800 discloses unwinding roll and winding roll (figures, page 4).

Claims 29-45: GB '800 discloses forward continuous motion through coating zone (figures and text).

Claims 62-89: GB '800 discloses using a polymer web supported by a metal coating, discloses the substrate may be paper or metal (page 4,8).

Claims 122-129: GB '800 discloses vapor deposition from a container using sublimation by radiant energy (abstract).

Claims 130-133: GB '800 discloses the phosphor layer directly on the substrate and therefore can reasonably be interpreted as binderless.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800.

GB '800 discloses coating an even layer of a phosphor on the surface of a large substrate and discloses using such for such products as a security card, decorative wrapping, etc. (page 1), however the reference fails to explicitly disclose cutting the substrate. However, taking into consideration the large scale of the continuous web and the foreseen applications of relatively small products, the cutting of the substrate would have been obvious to one of ordinary skill in the art, and well within the skill of one ordinary in the art, to have cut the substrate to provide the appropriate product size. All the claimed elements (cutting and phosphor web) were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

7. Claims 130-146 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800 in view of EP 1113458 hereafter EP '458 or visa versa.

GB '800 discloses all that is disclosed above, however, the reference fails to disclose the CrBr:Eu phosphor coating. However, GB '800 discloses the method can be utilized for the formation of various layer on a support material of paper, metal, or polymer, and EP '458 discloses vapor deposition of binderless photostimulable CrBr:Eu phosphor coating is known in the art from multiple containers in a vacuum chamber (0023-0024) and discloses deposition on supports such as paper, metal, or polymer. EP '458 discloses prompt emitting luminescent characteristics (0002). Therefore, taking the references collectively, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. See *KSR Int'l Inc. v. Teleflex Inc.*, 127 S Ct. 1727, 1741, 82 USPQ2d.

Alternatively, it would have been obvious to one of ordinary skill in the art to have modified the process of GB '800 to deposit the material as taught by EP '458 with a reasonable expectation of success because GB '800 discloses depositing any material using evaporation method onto the support material and EP '458 discloses binderless photostimulable CrBr:Eu phosphor coating is deposited on similar support material using evaporation coating method.

It would also have been obvious to one of ordinary skill in the art to have modified EP '458 to use the vapor deposition process as taught by GB '800 with a reasonable expectation of predictably depositing the binderless photostimulable CrBr:Eu phosphor coating on a support material.

8. Claims 90-122 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800 in view of EP 1113458 hereafter EP '458 or visa versa and further in view of US Patent 4455323, hereafter US '323.

GB '800 in view of EP '458 or visa versa teach all that is discussed above, however the references fail to disclose a support of aluminum with a coating as claimed. However, EP '458 discloses using an aluminum support material and discloses the support material may include a subbing layer (0025-0026). Additionally, US '323 discloses a process for depositing a phosphor on a support material discloses using a aluminum metal sheet and discloses polymer subbing layers improve adhesion for the phosphor (Column 5, lines 20-60), therefore the claim would have been obvious because the technique for improving a particular class of devices, methods or products was part of the ordinary capabilities of a person of ordinary skill in the art, in view of the teaching of the technique for improvement in other situations.

EP '458 discloses the support material is 60-10,000 microns, within the range as claimed. In the case where the claimed ranges "overlap or lie" inside ranges disclosed by prior art a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257 191 USPQ 90. See MPEP 2144.05.

9. Claims 146-169 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800 in view of EP '458 or visa versa and further in view of EP 1286364 hereafter EP '364 or US Patent 4741993, hereafter US '993

GB '800 in view of EP '458 or visa versa teach all that is discussed above, however the references fail to disclose applying a organic or inorganic protective coating over the phosphor layer. However, EP '364 discloses application of a protective coating over the phosphor layer to provide moisture protection and other benefits (abstract, 0014-0024) and US '993 discloses it is known in the stimuable phosphor art to deposit a protective coating for moisture protection (abstract, column 4-5, column 10-11). Therefore it would have been obvious to one of ordinary skill in the art to have modified GB '800 in view of EP '458 or visa versa to provide the protective coating as suggested by EP '362 or US '993 to reap the benefits of moisture protection and other added benefits.

10. Claims 46-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800 in view of EP '458 or visa versa in view of EP '364 or US '993 and further in view of US Patent 5460853 hereafter US '853.

GB '800 in view of EP '458 or visa versa in view of EP '364 or US '993 disclose all that is taught above, however, they fail to disclose forward and backward movement. However, the combination of references discloses forming multiple successive layer on a support material and US '853 discloses that it is known and suitable in the art to provide successive forward and backward motion to deposit layers (Column 3, figures). US '853 disclose that such modification results in better coating quality. Therefore, it would have been obvious to one of ordinary skill in the art to have modified GB '800 in

view of EP '458 or visa versa in view of EP '364 or US '993 to use successive forward and backward motions to reap the benefits of better coating quality.

11. Claims 170-209 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB '800 in view of EP '458 or visa versa, in view of EP '364 or US '993 and further in view of US Patent 4983848, hereafter US '848.

GB '800 in view of EP '458 or visa versa, in view of EP '364 or US '993 teaches all that is taught above, however, fail to laminate onto a carrier layer. However, US '848 discloses laminating the support film with a phosphor layer deposited thereon with what can reasonably be considered a polymer carrier layer (Example 4). Therefore it would have been obvious to modify GB '800 in view of EP '458 or visa versa, in view of EP '364 or US '993 with a the lamination process with a reasonable expectation of success because US '848 discloses that such is known and suitable in the art. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Claims 198-201: One of ordinary skill in the art would have recognized that the lamination takes place either in the vacuum chamber or outside, but US '848 discloses such lamination protects the phosphor layer and therefore it would have been obvious to have laminated in the vacuum environment so as not to expose the substrate coated to the open atmosphere.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 1-45, 62-225 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-75 of U.S. Patent No. 7141135. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application fully encompass those of US Patent 7141135.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-

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Art Unit: 1792

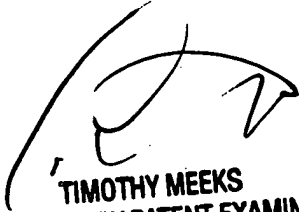
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2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Turocy/
AU 1792
Patent Examiner



TIMOTHY MEES
SUPERVISORY PATENT EXAMINER